

SUPPLEMENTAL AMENDMENT AND RESPONSE UNDER 37 CFR §1.116 – EXPEDITED PROCEDURE
Serial Number: 09/893,036
Filing Date: June 27, 2001
Title: FLEXIBLE TAPE ELECTRONICS PACKAGING
Assignee: Intel Corporation

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IN THE CLAIMS

Please amend the claims as shown in the following detailed claim listing.

The detailed claim listing is intended to reflect the amendment of previously pending claims 17, 21-22, 26-27, 31-32, 36, 38, 42, 44, and 46.

Please cancel claims 35, 41, 43, and 45 without prejudice.

The specific amendments to individual claims are indicated in the following detailed claim listing.

1-16. (Canceled)

17. (Currently amended) An electronic package substrate comprising:
a thin, flexible, electrically insulating film having a conductor region to mount an integrated circuit;
a plurality of traces within the film, including within the conductor region;
a plurality of lands on a surface of the film and coupled to the traces, wherein the lands are to mount corresponding pads of the integrated circuit in a ball grid array; and
wherein the film comprises a plurality of contiguous layers, selected ones of which comprise a plurality of traces, and wherein the film comprises one or more vias coupled to corresponding ones of the traces.

18. (Original) The electronic package substrate recited in claim 17, wherein the film is formed of material from the group comprising a polymeric film, polyimide, polyester, polyparabanic acid, epoxy, and fiberglass.

19-20. (Canceled)

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21. (Currently amended) An electronic package comprising:
a package substrate including
a thin, flexible, electrically insulating film having a conductor region to mount an
integrated circuit;
a plurality of traces, at least some of which are within the conductor region;
one or more vias within the film and coupled to corresponding ones of the traces;
and
a plurality of lands on a surface of the film and coupled to the traces; and
a flexible, electrically insulating film having a thickness in the range of approximately
.15 to .90 millimeters, the film having a conductor region, a plurality of traces in the conductor
region, and a plurality of lands formed directly upon a surface of the film and coupled to the
traces; and
an integrated circuit having a plurality of pads coupled to the plurality of lands in a ball
grid array.

22. (Currently amended) The electronic package recited in claim 21, wherein the film is
formed of material selected from the group consisting of comprising a polymeric film,
polyimide, polyester, polyparabanic acid, epoxy, and fiberglass.

23. (Original) The electronic package recited in claim 21, wherein the film comprises a
plurality of layers, each comprising a plurality of traces in the conductor region, and wherein
each layer has a thickness within the range of approximately .15 to .30 millimeters.

24-25. (Canceled)

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26. (Currently amended) An electronic system having at least one electronic assembly comprising:

a thin, flexible, electrically insulating film having a conductor region, a plurality of traces in the conductor region, and a plurality of lands formed directly upon a surface of the film and coupled to the traces;

an integrated circuit having a plurality of pads coupled to the plurality of lands in a ball grid array; and

wherein the film comprises a plurality of contiguous layers, selected ones of which comprise a plurality of traces in the conductor region, and wherein the film comprises one or more vias coupled to corresponding ones of the traces.

27. (Currently amended) The electronic system recited in claim 26, wherein the film is formed of material selected from the group consisting of comprising a polymeric film, polyimide, polyester, polyparabanic acid, epoxy, and fiberglass.

28-30. (Canceled)

31. (Currently amended) A data processing system comprising:

a bus coupling components in the data processing system;

a display coupled to the bus;

a memory coupled to the bus; and

a processor coupled to the bus and comprising an electronic assembly including,

a thin, flexible, electrically insulating film having a conductor region, a plurality of traces in the conductor region, one or more vias coupled to corresponding ones of the traces, and a plurality of lands formed directly upon a surface of the film and coupled to the traces; and

an integrated circuit having a plurality of pads coupled to the plurality of lands in a ball grid array.

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32. (Currently amended) The data processing system recited in claim 31, wherein the film is formed of material selected from the group consisting of comprising a polymeric film, polyimide, polyester, polyparabanic acid, epoxy, and fiberglass.

33. (Original) The data processing system recited in claim 31, wherein the film comprises a plurality of layers, each comprising a plurality of traces in the conductor region.

34-35. (Canceled)

36. (Currently amended) The electronic package substrate recited in claim 17 19, wherein the one or more vias couple traces within different layers ~~the film comprises one or more vias to couple traces within different layers.~~

37. (Previously added) A package substrate comprising:
a thin, flexible, electrically insulating film having a conductor region to mount an integrated circuit;
a plurality of traces, at least some of which are within the conductor region;
one or more vias within the film and coupled to corresponding ones of the traces; and
a plurality of lands on a surface of the film and coupled to the traces, wherein the lands are to mount corresponding pads of the integrated circuit.

38. (Currently amended) The package substrate recited in claim 37, wherein the film is formed of material selected from the group consisting of comprising a polymeric film, polyimide, polyester, polyparabanic acid, epoxy, and fiberglass.

39. (Previously added) The package substrate recited in claim 37, wherein the film comprises a plurality of layers, each comprising a plurality of traces.

40. (Previously added) The package substrate recited in claim 39, wherein the one or more vias couple traces within different layers.

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41. (Canceled)

42. (Currently amended) The electronic package recited in claim 21 23, wherein the one or more vias couple traces within different layers ~~the film comprises one or more vias to couple traces within different layers.~~

43. (Canceled)

44. (Currently amended) The electronic system recited in claim 26 28, wherein the one or more vias couple traces within different layers ~~the film comprises one or more vias to couple traces within different layers.~~

45. (Canceled)

46. (Currently amended) The data processing system recited in claim 33, wherein the one or more vias couple traces within different layers ~~the film comprises one or more vias to couple traces within different layers.~~